



## Complete Summary

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### TITLE

Osteoarthritis: percentage of patients with osteoarthritis for whom oral pharmacologic therapy is changed from acetaminophen to a different oral agent with evidence that they have had a trial of maximum-dose acetaminophen (suitable for age and comorbidities).

### SOURCE(S)

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. *Arthritis Rheum* 2004 Apr 15;51(2):193-202. [PubMed](#)

Pencharz JN, MacLean CH. Measuring quality in arthritis care: the Arthritis Foundation's Quality Indicator set for osteoarthritis. *Arthritis Rheum* 2004 Aug 15;51(4):538-48. [108 references] [PubMed](#)

### Measure Domain

#### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

#### SECONDARY MEASURE DOMAIN

Does not apply to this measure

### Brief Abstract

#### DESCRIPTION

This measure is used to assess the percentage of patients with osteoarthritis for whom oral pharmacologic therapy is changed from acetaminophen to a different oral agent with evidence that they have had a trial of maximum-dose acetaminophen (suitable for age and comorbidities).

#### RATIONALE

Acetaminophen may achieve pain relief comparable to a nonsteroidal inflammatory agent (NSAID) (nonselective and selective) and is less toxic.

The American College of Rheumatology (ACR) osteoarthritis (OA) guidelines states that "although a number of patients may fail to obtain adequate relief even with full doses of acetaminophen, this drug merits a trial as initial therapy, based on its overall cost, efficacy, and toxicity profile. In patients with knee OA with moderate-to-severe pain. . . [a] prescription of an NSAID merits consideration as an alternate initial therapeutic approach."

## **PRIMARY CLINICAL COMPONENT**

Osteoarthritis; oral pharmacologic therapy; acetaminophen

## **DENOMINATOR DESCRIPTION**

Patients with osteoarthritis for whom oral pharmacologic therapy is changed from acetaminophen to a different oral agent

## **NUMERATOR DESCRIPTION**

Patients with evidence that they have had a trial of maximum-dose acetaminophen (suitable for age and comorbidities)

### **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### **Evidence Supporting Need for the Measure**

## **NEED FOR THE MEASURE**

Unspecified

### **State of Use of the Measure**

## **STATE OF USE**

Current routine use

## **CURRENT USE**

Internal quality improvement

### Application of Measure in its Current Use

#### **CARE SETTING**

Ambulatory Care  
Physician Group Practices/Clinics

#### **PROFESSIONALS RESPONSIBLE FOR HEALTH CARE**

Advanced Practice Nurses  
Physician Assistants  
Physicians

#### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Individual Clinicians

#### **TARGET POPULATION AGE**

Unspecified

#### **TARGET POPULATION GENDER**

Either male or female

#### **STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

### Characteristics of the Primary Clinical Component

#### **INCIDENCE/PREVALENCE**

Osteoarthritis (OA) is the most common form of arthritis. It is a degenerative joint disease that affects about 12% of the general population, with prevalence increasing with age. Between 60% and 70% of individuals aged 65 years or older show radiographic changes consistent with OA, and about half of these meet classification criteria for the disease by reporting joint pain or stiffness.

#### **EVIDENCE FOR INCIDENCE/PREVALENCE**

Hawker G. Epidemiology of arthritis and osteoporosis. 1st ed. Toronto (ON): Institute for Clinical Evaluative Sciences (ICES); 1998.

Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH, Heyse SP, Hirsch R, Hochberg MC, Hunder GG, Liang MH, Pillemer SR, Steen VD, Wolfe F.

Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. Arthritis Rheum 1998 May;41(5):778-99. [PubMed](#)

## **ASSOCIATION WITH VULNERABLE POPULATIONS**

See "Incidence/Prevalence" field.

## **BURDEN OF ILLNESS**

Pain and disability are the most common consequences of osteoarthritis (OA) joint damage.

## **EVIDENCE FOR BURDEN OF ILLNESS**

Felson DT, Lawrence RC, Dieppe PA, Hirsch R, Helmick CG, Jordan JM, Kington RS, Lane NE, Nevitt MC, Zhang Y, Sowers M, McAlindon T, Spector TD, Poole AR, Yanovski SZ, Ateshian G, Sharma L, Buckwalter JA, Brandt KD, Fries JF. Osteoarthritis: new insights. Part 1: the disease and its risk factors. Ann Intern Med 2000 Oct 17;133(8):635-46. [120 references] [PubMed](#)

## **UTILIZATION**

Unspecified

## **COSTS**

Unspecified

## **Institute of Medicine National Healthcare Quality Report Categories**

### **IOM CARE NEED**

Living with Illness

### **IOM DOMAIN**

Effectiveness

## **Data Collection for the Measure**

### **CASE FINDING**

Users of care only

### **DESCRIPTION OF CASE FINDING**

Patients with osteoarthritis for whom oral pharmacologic therapy is changed from acetaminophen to a different oral agent

## **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

## **DENOMINATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Patients with osteoarthritis for whom oral pharmacologic therapy is changed from acetaminophen to a different oral agent

### **Exclusions**

Unspecified

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition

Therapeutic Intervention

## **DENOMINATOR TIME WINDOW**

Time window is a single point in time

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Patients with evidence that they have had a trial of maximum-dose acetaminophen (suitable for age and comorbidities)

### **Exclusions**

Unspecified

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## **NUMERATOR TIME WINDOW**

Episode of care

## **DATA SOURCE**

Administrative and medical records data  
Administrative and pharmacy data  
Medical record

## **LEVEL OF DETERMINATION OF QUALITY**

Individual Case

## **PRE-EXISTING INSTRUMENT USED**

Unspecified

## **Computation of the Measure**

### **SCORING**

Rate

### **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

### **ALLOWANCE FOR PATIENT FACTORS**

Unspecified

### **STANDARD OF COMPARISON**

Internal time comparison

## **Evaluation of Measure Properties**

### **EXTENT OF MEASURE TESTING**

A multidisciplinary expert panel comprised of nationally recognized experts discussed and rated the validity of each of the proposed measures based on the evidence and their expert opinion using a modification of the RAND/UCLA Appropriateness Method.

### **EVIDENCE FOR RELIABILITY/VALIDITY TESTING**

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. Arthritis Rheum 2004 Apr 15;51(2):193-202. [PubMed](#)

Pencharz JN, MacLean CH. Measuring quality in arthritis care: the Arthritis Foundation's Quality Indicator set for osteoarthritis. Arthritis Rheum 2004 Aug 15;51(4):538-48. [108 references] [PubMed](#)

## Identifying Information

### ORIGINAL TITLE

Quality Indicator 12. Maximum dosage of acetaminophen.

### MEASURE COLLECTION

[The Arthritis Foundation's Quality Indicator Project](#)

### MEASURE SET NAME

[The Arthritis Foundation's Quality Indicator Set for Osteoarthritis](#)

### SUBMITTER

Arthritis Foundation

### DEVELOPER

Arthritis Foundation  
RAND Health

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2004 Aug

### MEASURE STATUS

This is the current release of the measure.

### SOURCE(S)

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. Arthritis Rheum 2004 Apr 15;51(2):193-202. [PubMed](#)

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### MEASURE AVAILABILITY

The individual measure, "Quality Indicator 12. Maximum Dosage of Acetaminophen," is published in "Measuring Quality in Arthritis Care: The Arthritis Foundation's Quality Indicator Set for Osteoarthritis."

For more information contact:  
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Web site: [www.arthritis.org](http://www.arthritis.org)

OR

RAND Health  
1776 Main Street  
P.O. Box 2138  
Santa Monica, CA 90407-2138  
Telephone: (310) 393-0411, ext. 7775  
Web site: [www.rand.org/health](http://www.rand.org/health)  
E-mail: [RAND\\_Health@rand.org](mailto:RAND_Health@rand.org)

## **NQMC STATUS**

This NQMC summary was completed by ECRI on August 24, 2006. The information was verified by the measure developer on November 6, 2006.

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